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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/799,609	03/15/2004	Taichi Nagata	60188-806	8409
<div>7590 07/18/2007 Jack Q. Lever, Jr. McDERMOTT, WILL & EMERY 600 Thirteenth Street, N.W. Washington, DC 20005-3096</div>			<div>EXAMINER TURCHEN, JAMES R</div>	
			<div>ART UNIT 2139</div>	<div>PAPER NUMBER</div>
			<div>MAIL DATE 07/18/2007</div>	<div>DELIVERY MODE PAPER</div>

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/799,609	Applicant(s) NAGATA ET AL.	
	Examiner James Turchen	Art Unit 2139	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>03/15/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 1-9 are pending.

Specification

The disclosure is objected to because of the following informalities: Applicant uses "wiring and erasing" frequently throughout disclosure when it is meant to say "writing and erasing".

The misuse of wiring should be corrected with the proper term.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 3, 4, and 6-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 3, 4, 6 and 7 use the phrase "special command line" which is not well known in the art and it is unclear what applicant regards as a special command line. The examiner interprets special command line to be a command line hereinafter. Claims 8 and 9 are considered indefinite because they state the access control circuit detects writing or erasing to the unrewritable area and if the written flag indicates prohibition, then the system erases everything but the unrewritable area. It is unclear why the other data is being erased. In regards to claim 9, it is unclear why all data is erased when the erase command is directed to the unrewritable area again. Examiner considers applicant to mean an erasure of all memory.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-4 are rejected under 35 U.S.C. 102(e) as being anticipated by Falik et al. (US 2002/0166061; hereinafter Falik).

Regarding claim 1:

Falik discloses an access control system for a nonvolatile memory (Abstract, flash memory), the system comprising:

a nonvolatile memory (Abstract, flash memory);

a boot ROM (Read Only Memory) in which a program for initializing the system is stored (Figure 1, EC Boot Block 121 and Host Boot Block 122);

a CPU (Central Processing Unit) for issuing a command to the nonvolatile memory (paragraph 20, Host 101 contains a processor; paragraph 65, Embedded Controller (EC) within the Flash Memory); and

an access control circuit for receiving the command from the CPU and controlling access to the nonvolatile memory (Figure 1 and paragraphs 77 and 78, access control 104 and arbitration unit 102),

wherein at every power-on of the system, the CPU executes the program for initializing the system stored in the boot ROM so that an unrewritable area is set at only one time in the nonvolatile memory and a written flag is set at only one time in the unrewritable area (paragraph 82, a unrewritable area is able to be set by using the lock flag which will prevent the read and write flags from being changed), and

the access control circuit prohibits writing to the nonvolatile memory before checking the state of the written flag and, after checking the state of the written flag, the access control circuit permits writing to the unrewritable area at any number of times as long as the written flag does not indicate prohibition of rewriting, while prohibiting writing to the unrewritable area after prohibition of rewriting has been set in the written flag (paragraph 80, access control unit 104 implements access control scheme; it is inherent that if a Host is not given write permission, then Host will not have access to write data and vice versa).

Regarding claims 2 and 3:

Falik discloses the access control system of claim 1, wherein the access control circuit includes a command analyzing section for analyzing the command received from the CPU, and the command analyzing section does not transmit the command received from the CPU to the nonvolatile memory if the command received from the CPU indicates writing or erasing to the nonvolatile memory, the writing or erasing is directed to the unrewritable area in the nonvolatile memory and the written flag indicates prohibition of rewriting (paragraph 35, it is inherent in a memory access control scheme

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to not allow a command to get passed along to memory if it is restricted by the access control scheme).

Regarding claim 4:

Falik discloses the access control system of claim 2, wherein if a special command line is needed for erasing all the data in the nonvolatile memory, the command analyzing section analyzes all the commands received from the CPU, and if the command line indicates erasing all the data in the nonvolatile memory and the written flag indicates prohibition of rewriting, the command analyzing section does not transmit a command line received from the CPU to the nonvolatile memory at all (paragraph 35, the access control unit may comprise sets of flags for enabling/disabling Host read and write/erase access).

Regarding claim 8:

Falik discloses the access control system of claim 1, wherein the access control circuit detects writing or erasing to the unrewritable area in the nonvolatile memory and, if the written flag indicates prohibition of rewriting, erases data in the area except for the unrewritable area in the nonvolatile memory (it is inherent that the system in Falik will erase all but the protected sections if the system is told to erase all).

Regarding claim 9:

Falik discloses the access control system of claim 1, wherein the access control circuit detects writing or erasing to the unrewritable area in the nonvolatile memory and, if the written flag indicates prohibition of rewriting, rewrites all the data in the nonvolatile

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memory such that the data have the same value as the written flag (paragraph 79, special erase will erase the entire contents of the flash memory).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Falik as applied to claim 1 above, and further in view of Schneider (US 6,363,487; hereinafter Schneider).

Regarding claim 5:

Falik discloses the access control system of claim 1, wherein an unused area in which no useful data is placed is provided in the nonvolatile memory,

the access control circuit includes a command analyzing section for analyzing the command received from the CPU (paragraph 35).

Falik does not disclose the command analyzing section operates such that writing or erasing is performed in the unused area in the nonvolatile memory if the command received from the CPU indicates writing or erasing to the nonvolatile memory, the writing or erasing is directed to the unrewritable area in the nonvolatile memory and the written flag indicates prohibition of rewriting. Schneider discloses the command analyzing section operates such that writing or erasing is performed in the unused area in the nonvolatile memory if the command received from the CPU indicates writing or erasing to the nonvolatile memory, the writing or erasing is directed to the unrewritable area in the nonvolatile memory and the written flag indicates prohibition of rewriting (figure 3, the data is in protected area and the controller allows the special write command). It would have been obvious to one of ordinary skill in the art at the time of invention to modify the system of Falik with the system of Schneider in order reduce the ability of inappropriate software access to storage medium and provide data protection without needing to be loaded into the host system memory (column 2 lines 13-17).

Regarding claims 6 and 7:

The access control system of claim 5, wherein if a special command line is needed for writing or erasing to the nonvolatile memory, the command analyzing section analyzes all the commands received from the CPU, and if the command line indicates writing or erasing to the nonvolatile memory, the writing or erasing is directed to the unrewritable area in the nonvolatile memory and the written flag indicates prohibition of

rewriting, the command analyzing section operates such that writing or erasing is performed in the unused area in the nonvolatile memory (paragraph 35, it is inherent in a memory access control scheme to not allow a command to get passed along to memory if it is restricted by the access control scheme).


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Turchen whose telephone number is 571-270-1378. The examiner can normally be reached on MTWRF 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on (571)272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JRT


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